PROGRAM CHARTER
FOR

Regional Decision Support

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1. EXECUTIVE SUMMARY

The Climate Regional Decision Support (RDS) Program provides information and tools to support decision makers in improving management of risks to the U.S. economy in sectors and areas that are sensitive to impacts from weather and climate. This includes annual losses from drought, the negative impacts of strong El Niño and La Niña events, sea level rise, and other high impact climate events. The RDS Program is addressing an increased demand for traditional climate services, such as data and forecast dissemination and customer support, as well as identifying and satisfying new requirements for information on long term climate trends and decision support in sectors such as drought and water management, fire, emergency preparedness, health, transportation, energy, coastal, urban, and ecosystem management. The RDS Program builds bridges between producers and users of climate information, allowing decision makers to participate in the creation of new knowledge, processes, tools, and products to improve planning, risk management, resource allocation, impacts assessment, adaptation, mitigation, early warning, and operational response in sectors sensitive to climate variability and change. An increasing demand for services is met through research into decision maker needs and prototype product development; transition of research products into application and operations; and operational delivery and support of climate services. RDS relies heavily on NOAA's extensive infrastructure with more than 150 offices at the national, regional and local levels contributing. The program also leverages resources from partners working at the international, national, regional, state, and local levels, as well as academia.

Program URLs:
http://www.weather.gov/om/csd
http://www.climate.noaa.gov/
http://www.weather.gov/climate
http://lwf.ncdc.noaa.gov/oa/climate/regionalclimatecenters.html
http://lwf.ncdc.noaa.gov/oa/climate/aasc.html
http://www.cdc.noaa.gov/

2. PROGRAM REQUIREMENTS

Requirement Drivers: (Superscript numbers indicate the Mission Requirement (s) addressing the Program Requirement)

Legislation:

A. National Climate Program Act of 1978, 15 U.S.C. § 2901 *et seq*.- establish a national climate program including data collection, research, forecasting, and dissemination. [1,3]

B. Global Change Research Act of 1990, 15 U.S.C. § 2921 *et seq* - develop a comprehensive U.S. research program to assist the Nation and the world in understanding, assessing, predicting, and responding to human-induced and natural processes of climate variability and global change. [1,3]

C. National Integrated Drought Information System Act of 2006, Public Law 109-430-DEC. 20. - establish a National Integrated Drought Information System within the National Oceanic and Atmospheric Administration to improve drought monitoring and forecasting capabilities.[1,2,3]

D. Coastal Zone Management Act 6 U.S.C. § 1451. Congressional findings (Section 302) et seq. -
(l) Because global warming may result in a substantial sea level rise with serious adverse effects in the coastal zone, coastal states must anticipate and plan for such an occurrence. 16 U.S.C. § 1456b. Coastal Zone Enhancement Grants (Section 309) (a)(2) Preventing or significantly reducing threats to life and destruction of property by eliminating development and redevelopment in high-hazard areas, managing development in other hazard areas, and anticipating and managing the effects of potential sea level rise and Great Lakes level rise. 1,2,3

Policy Decisions:

E. Grand Challenges for Disaster Reduction. National Science and Technology Council Committee on Environment and Natural Resources, Sub-committee on Disaster Reduction. 2005 – recommends undertaking NIDIS-like drought activities in the U.S. 1,2,3

F. Policy on Transition of Research to Applications (NOAA Administrative Order (NAO) 216- 105) - NOAA will maximize the timely application of NOAA-sponsored research and capitalize on non-NOAA research in order to meet mission needs.2

International Agreements:

G. Strategic Plan of the U.S. Climate Change Science Program. 2003 - explore the uses and identify the limits of evolving knowledge to manage risks and opportunities related to climate variability and change. 1,2,3

H. Creating a Drought Early Warning System for the 21st Century: The National Integrated Drought Information System (NIDIS). Western Governors' Association. 2004 - establish an integrated drought information system including operational services, research and tool development, monitoring, and integrated observing systems. 1,3

I. Strategic Plan for the U.S. Integrated Earth Observing System. 2004 - A complete monitoring system that supports risk assessment surveys, providing information critical to improved mitigation strategies and providing systematic and sustained monitoring of regions at risk, including the need for improved observations for disaster warning, global land cover, and sea level, drought, and air quality monitoring. The NIDIS monitoring system is an integral part of the U.S. Integrated Earth Observing System with a plan currently being developed.3

J. U.S. Integrated Earth Observing System National Integrated Drought Information System Near Term Opportunities Plan. The Near-Term Opportunities (NTO) outlined in the Plan include: (1) Improved Frequency, Timeliness, and Density of Key Observations (within the observations business function); (2) The development of a U.S. Drought Data Portal (USDP) (within the data management business function); and (3) Improved Coordination of NIDIS Operations (within the coordination business function). 1,2,3

K. Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Working Group II Report –

Climate Change Impacts, Adaptation, and Vulnerability. 1,3 Working Group II assesses the scientific, technical, environmental, economic and social aspects of the vulnerability (sensitivity and adaptability) to climate change of, and the negative and positive consequences for, ecological systems, socio-economic sectors and human health, with an emphasis on regional sectoral and cross-sectoral issues.

L. A Climate Services Vision: First Steps Toward the Future (National Research Council, 2001)* - develop regional and local climate services and provide an efficient transfer of research into operations. (List of specific requirements addressed by RDS is in appendix). 1,2,3

M. UN Framework Convention on Climate Change (UNFCCC), Article 4.1(e) & (f):
Cooperate in prepare for adaptation to the impacts of climate change including impact assessments and integrated plans for coastal zone management, water resources and agriculture, and for the protection and rehabilitation of areas, particularly in Africa, affected by drought and desertification, as well as floods with a view to minimizing adverse effects on the economy, on public health and on the quality of the environment.1

Official Action (driving all Mission Requirements):

N. NOAA Strategic Plan 2006-2011 - develop and contribute to routine state-of-the science climate assessments for informed decision-making, work with customers to deliver climate services, information products, and tools; coordinate the transition of research into operations and applications; and enhance environmental literacy to support improved decision making. 1,2,3

B. Mission Requirements (superscripts indicate Requirement Driver addressed; I, J, K, L cover all Requirements):

1. Conduct science and support partnerships for decision support climate research prototype product development. [A, B,C,D,E,F,H,I,J,K,LM,N]

2. Ensure a healthy transition of decision support climate research into operations and applications. [B,C,D,E,H,I,J,K,L,M,N]

3. Provide operational climate services to the public and partners including data and climate record stewardship, forecast products, and customer outreach and support. [A,B,C,D,E,F,G,H,I,J,K,L,M,N]

3. LINKS TO THE NOAA STRATEGIC PLAN

RDS addresses NOAA's Climate Goal to "Understand Climate Variability and Change to Enhance Society's Ability to Plan and Respond."

A. Goal outcomes:

RDS supports the NOAA goal outcomes:

- A predictive understanding of the global climate system on time scales of weeks to decades with quantified uncertainties sufficient for making informed and reasoned decisions
- Climate-sensitive sectors and the climate-literate public effectively incorporating NOAA's climate products into their plans and decisions.

B. Goal Performance Objectives:

RDS dominantly supports the Climate Performance Objective:

- Increase number and use of climate products and services to enhance public and private sector decision-making.

RDS builds on the following Performance Objectives and provides feedback to them to accomplish its mission:

- Describe and understand the state of the climate system through integrated observations, analysis, and data stewardship. Improve climate predictive capability from weeks to decades, with an increased range of applicability for management and policy decisions.

C. Goal Strategies:

RDS supports the following NOAA Climate Goal strategies

- Advance sub-seasonal to inter-annual climate predictions and climate change projections by improving analysis of the climate system, using ensembles of multiple, high-end climate and earth models.
- Develop and contribute to routine state-of-the-science assessments of the climate system for informed decision-making.
- Work with customers in order to deliver climate services and information products involved in health, safety, environmental, economic, and community planning that increase the effective application of this information.
- Coordinate among NOAA line offices the transition from investigator-driven research projects to operational facilities, capabilities, and products.
- Support educational efforts to create a more climate-literate public by developing climate educational materials, involving teachers in the research process, and generating tools to allow climate information to be used in decision-making.

4. PROGRAM OUTCOME(S*)*

The long-term outcomes of the RDS program include:

- The climate-literate public and decision-making community effectively incorporating NOAA's climate products into their regular operations.
- The nation's principal climate sensitive resource challenges and opportunities are identified.

5. PROGRAM ROLES AND RESPONSIBILITIES

This program is established and managed with the procedures established in the NOAA Business Operations Manual (BOM). Responsibilities of the Program Manager are described in the BOM. Responsibilities of other major participants are summarized below:

A. Participating Line Office, Staff Office, and Council Responsibilities:

1. NOAA Research (OAR) – is responsible for prototype product development and oversees the grant process in the areas of research and transition from research to applications and operations parts of the component through the Climate Diagnostics Center (CDC) and the Climate Program Office (CPO).
2. NOAA National Weather Service (NWS) – is responsible for operational product delivery and support of climate forecasts and information through the Climate Services Division (CSD), the Regional Headquarters, all Weather Forecast Offices (WFOs), Weather Services Offices (WSOs), and River Forecast Centers (RFCs)
3. NOAA Satellites and Information (NESDIS) – is responsible for data services and support for product development and operational production, through the National Climatic Data Center (NCDC) and the Regional Climate Centers (RCC).

4. NOAA Research Council – advice on priority research items for maximum societal benefit.
5. NOAA Education Counsel – ensures education and outreach activities are consistent with NOAA vision and requirements.
6. NOAA General Council – The NOAA Office of General Counsel (GC) is responsible for providing legal services necessary to enable the program to discharge its duties.

B. External Agency/Organization Responsibilities:

1. American Association of State Climatologists – AASC fills a critical spatial gap in NOAA's climate service coverage and provides direct operational support to governors' drought task forces and environmental management programs at the state level.
2. Academia—the Program awards extramural research grants for decision support climate research and transition activities, forms complementary intramural-extramural research partnerships, and supports prototype product and tool development, including those addressing requirements of the Climate Change Science Program.
3. International - The Program awards extramural grants for applied research, prototype product and tool development; and conducts integrated activities with international organizations such as the World Meteorological Organization and Famine Early Warning System.

6. END USERS OR BENEFICIARIES OF PROGRAM

1. INDUSTRY/PRIVATE SECTOR RESOURCE MANAGERS: The Program works with existing private sector partners to develop and provide climate services, including tools, forecasts, education, and outreach, to mitigate risk and maximize profit from climate an related weather events. The Program abides by the NOAA Policy for Partnerships in the Provision of Environmental Information.
2. FEDERAL, STATE, LOCAL GOVERNMENTS/AGENCIES: The Program provides services, forecasts, tools, analyses, and information vital to planning and maintenance, for State Drought Task Forces and Environment Agencies, for support of operations to improve timeliness and accuracy of disaster declarations, and for local level decision-making.
3. GENERAL PUBLIC (including Non-Governmental Organizations & Native and Tribal Groups): The Program develops forecasts, tools, and analyses for decision-making including education and outreach materials.